General Chemical

GENERAL CHEMICAL CORPORATION

DELAWARE VALLEY WORKS
6300 PHILADELPHIA PIKE
CLAYMONT DELAWARE 19703
(302) 792-8500

June 20, 1986

Mr. Stephen R. Wassersug
Hazardous Waste Management Division
USEPA Region III
841 Chestnut Building
Philadelphia PA 19107

RE: 3HW33; PAD 990823742

Dear Mr. Wassersug:

In response to your request dated April 3, 1986 which was received at the Delaware Valley Works on April 9,1986, the requested information on Solid Waste Management Units (SWMUs) has been compiled to the extent it is available. We believe this response accurately characterizes the present site and its operations over many years in the past.

The Delaware Valley Works is a diversified chemical manufacturing facility consisting of the former Baker & Adamson Works in Marcus Hook, PA and the former Delaware Works in Claymont, DE. The Baker & Adamson Works began operations in 1944, the Delaware Works in 1912. These two previously independent facilities were under a unified on-site management team by Allied Corporation in 1979, and the combined facility renamed the Delaware Valley Works at that time. In June, 1986 the Works became part of the General Chemical Corporation which is a subsidiary of the Henley Group, Inc.

Products presently manufactured include sulfuric acid, sulfur dioxide based photochemicals, water treatment chemicals, inorganic fluorides, metallic nitrates and nitrites, metallic fluoborates, boron trifluoride, oxime silanes, beta naphthalene sulfonic acid, fluosulfonic acid, sodium and potassium hydroxide pellets, various other inorganic salts and oxamide. A number of both halogenated and non-halogenated solvents are packaged or repackaged. Several of these operations are now conducted by General Chemical Corporation for Allied Corporation under the terms of a contractual agreement.

As many of the production facilities at Delaware Valley Works have been in service for a number of years, it is probable that in-process drips, leaks, upsets, etc. which have occurred are reflected in the condition of the ground surface in and around the various operating areas. Although ground contamination from such sources has been investigated in the former pesticide processing and handling areas, and the results provided to USEPA Region III, no other specific investigations have been conducted,

and such incidental surface contamination is not considered to be a SWMU. These probable minor releases were identified in our June, 1981 notification submitted as required by CERCLA Section 103(c). A copy of this notification is appended as Attachment. A.

Filter cake and solids from a vacuum filter associated with the photo-salt manufacturing process are discharged directly to a dumpster for subsequent off-site disposal as a non-hazardous waste. Several other dumpsters are used for the collection and off-site disposal of other non-hazardous wastes including plant trash and construction/ maintenance debris. These dumpsters are not considered to be SWMUs, and have not been identified as such in this report.

Each SWMU hereby reported is identified numerically on the attached sheets which provide the requested information. The SWMUs are shown by their numerical identification on the topographic map, and on the folders containing available blueprints. Attachments C and D contain information relating to environmental testing performed that is considered pertinent to several of our SWMUs.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowin violations. If there are any questions regarding this matter please contact J. M. Shepard at (302) 792-8502.

Very truly yours,

James A. Wilkinson
Plant Manager

md

Attachment

cc: Mr. Wayne L. Lynn (2)
Regional Solid Waste Manager
1875 New Hope Street
Norristown PA 19401

INDEX

SWMU #1 .. 1000 NT Phosphoric Acid Storage Pond (North Pond)

YEARS USED: 1960 - 1984

UNITS FUNCTION:

A) Storage of product Phosphoric Acid to 1971
B) Waste Effluent equalization pond - 1982 - 1984

MATERIAL OF CONSTRUCTION:

Compacted clay earth lined with 3 ply of burlap reinforced Barrett's crystal asphalt. Outside protected by two coats of road oil and chipped rock.

DIMENSIONS: 94' x 104' x 6' outside dimension
50' x 60' inside dimension

CAPACITY: Approximately 1000 NT

ENGINEERING DRAWINGS: 510434

WASTE DESCRIPTION:

Aqueous Sodium Hydroxide effluent from the Fluosulfonic Acid scrubber. Stormwater run-off from the Alum area, inorganic acids from washing of tank cars and tank trucks. (NPDES DE0000655).

QUANTITY: Out of service since 1984

CLOSURE PROCEDURE: Not applicable

RELEASES: None known

SWMU #2 .. 900 NT Phosphoric Acid Storage pond (South Pond)

YEARS USED: 1960 - 1970

UNIT'S FUNCTION: Storage of Product Acid

MATERIALS OF CONSTRUCTION: Compacted clay earth lined with 3 ply of burlap reinforced Barrett's Crystal asphalt. Outside protected by two coats of road oil and chipped rock.

DIMENSIONS: 74' x 134' x 6' tapered (outside dimensions)
30' x 91' x 6' (inside dimensions)

CAPACITY: Approximately 900 NT

ENGINEERING DRAWINGS: DRW 511794

WASTE DESCRIPTION: Iron Phosphate
Muds accumulated and removed to off-site disposal

QUANTITY: No waste remaining

CLOSURE PROCEDURE: Unit dismantled (1971)
Covered with dirt & gravel in preparation as construction site for South Waste Treatment Plant (1972)

RELEASE: None known

SWMU #3 .. Red Mud Slurry Pond (A)

YEARS USED: 1965 - 1971

UNIT'S FUNCTION: Hold Iron Oxide Slurry from settlers. Liquid drained off to sluiceway.

MATERIAL OF CONSTRUCTION: Pond constructed of railroad ties on end to form a continuous bulkhead

DIMENSIONS: 30' x 100' pond: 5' 6" depth

CAPACITY: Approximately 120,000 gal.

ENGINEERING DRAWINGS: DLW B-4904

WASTE DESCRIPTION: Residual Iron Oxide from burning pyrites ore

QUANTITY: No waste remaining

CLOSURE PROCEDURE: Dismantled in 1974, cinder remaining in pond disposed off-site. Pond area back filled.

RELEASE: None known

SWMU #4 .. Red Mud Slurry Pond (B)

YEARS USED: 1965 - 1971

UNIT'S FUNCTION: Hold Iron Oxide slurry from settlers. Liquid drained off to sluiceway.

MATERIAL OF CONSTRUCTION:

Pond constructed of railroad ties on end to form a continuous bulkhead.

DIMENSIONS: 30' x 100' pond, 5' 6" depth

CAPACITY: Approximately 120,000 gallon

ENGINEERING DRAWINGS: DLW B-4904

WASTE DESCRIPTION: Residual Iron Oxide from burning pyrites ore

QUANTITY: No waste remaining

CLOSURE PROCEDURE: Dismantled in 1974. Pond area back filled

RELEASE: None known

SWMU #5 .. Spar Building Storage Area

YEARS USED: 1980 to present

UNIT'S FUNCTION: A general storage area for miscellaneous plant waste, construction materials and off-grade product staging area for re-use.

MATERIAL OF CONSTRUCTION:

A segregated and fenced outside drum and maintenance storage area, with an asphalt base

DIMENSIONS: 100' x 130'

CAPACITY: Maximum .. 500 x 55 gallon drums

ENGINEERING DRAWINGS: None available

WASTE DESCRIPTION: The following non-hazardous waste materials:

A) Brick, refractory, scrap metal, etc.
B) Hypo muds
C) Carbon and sand residues
D) Waste oil and lubricants
E) Sulfuric Acid sludges
F) Resin beads

QUANTITY: Approximately 300 drums
Bricks

CLOSURE PROCEDURE: Not applicable

RELEASES: None known

SWMU #6 .. Drum Storage
South Treatment Plant

YEARS USED: Prior to 1980 to present

UNIT'S FUNCTION: Storage of off-grade Sodium Sulfite/Sodium Sulfate in Fiberpaks on wooden pallets

MATERIAL OF CONSTRUCTION:

Open storage area with an asphalt/concrete base

DIMENSIONS: Asphalt Area .. 70' x 65'
Concrete Area .. 28' x 25'

Total Area ... 5,250 sq ft

CAPACITY: 600 - 700 drms

ENGINEERING DRAWINGS: None available

WASTE DESCRIPTION: Off-grade Sodium Sulfite/Sodium Sulfate product on wooden pallets

QUANTITY: Approximately 570 fiberpaks (44 gallon capacity)

CLOSURE PROCEDURE: None applicable

RELEASES: None known

SWMU #7 .. Effluent Clarifier

YEARS USED: 1972 - 1982 (Waste Treatment Sludge)
1982 - Present (Waste Effluent Clarifier)

UNIT'S FUNCTION:

A) 1972 - 1982 .. Waste clarifier received treated process water from the South Waste Treatment Plant neutralizer

B) 1982 to present .. Waste effluent clarifier

MATERIAL OF CONSTRUCTION: Steel tank on concrete foundation

DIMENSIONS:" 30' diameter x 13' height, with flat bottom

CAPACITY: 69,000 gallon

ENGINEERING DRAWINGS: 73239B5, 73239D1

WASTE DESCRIPTION: 1972 - 1982 (Waste Treatment sludge)

1984 to present (Waste Neutralized Effluent - inorganic acids from washing of tank cars and tank trucks) NPDES DE 0000655

QUANTITY: 80,000 gal/month (Typical)
25,000 to 110,000 range

CLOSURE PROCEDURE: Not applicable

RELEASES: - None known

SWMU #8 .. Alum Clarifier

YEARS USED: 1972 - 1982 (Alum Muds Settler)
1985 - Present (Sulfate muds)

UNIT'S FUNCTION:

A) 1972 - 1982 (Alum Muds Settler)
B) 1985 - Present (Sulfate muds)

MATERIAL OF CONSTRUCTION:

Steel tank, rubber lined

DIMENSIONS: 25' diameter x 10' height

CAPACITY: 37,000 gallon

ENGINEERING DRAWINGS: 73240D1

WASTE DESCRIPTION:

A) Alum Muds (1972 - 1982)
B) Storage of Sulfate Muds (1985 - Present)

QUANTITY: Approximately 20,000 gallons

CLOSURE PROCEDURE: Not applicable

RELEASE; None known

SWMU #8 .. Alum Clarifier

YEARS USED: 1972 - 1982 (Alum Muds Settler)
1985 - Present (Sulfate muds)

UNIT'S FUNCTION:

A) 1972 - 1982 (Alum Muds Settler)
B) 1985 - Present (Sulfate muds)

MATERIAL OF CONSTRUCTION:

Steel tank, rubber lined

DIMENSIONS: 25' diameter x 10' height

CAPACITY: 37,000 gallon

ENGINEERING DRAWINGS: 73240D1

WASTE DESCRIPTION:

A) Alum Muds (1972 - 1982)
B) Storage of Sulfate Muds (1985 - Present)

QUANTITY: Approximately 20,000 gallons

CLOSURE PROCEDURE: Not applicable

RELEASE; None known

SWMU #9: .. Solid Waste Impoundment/Pile

YEARS USED: 1966 to Present

UNIT'S FUNCTION: Impoundment of four (4) Solid Waste materials

MATERIAL OF CONSTRUCTION:

Base .. earth. Impoundment area comprised of four (4) process waste "muds"/filter cakes

DIMENSIONS: See Topographic map

CAPACITY: Unknown

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION:

A) Hydrofluoric residue from settling pond (gypsum).
B) Red "Muds" (Iron Oxide)
C) Alum "Muds" (Silica Dioxide, Aluminum Hydroxide, Calcium Sulfate, Titanium Salts)
D) South Plant Treatment "Muds" (Combined materials from (A) and (C) above)

QUANTITY: Estimated 350,000 net ton

CLOSURE PROCEDURE: Not applicable

RELEASES: Correspondence of 8/15/80 from Allied Chemical to DNREC (Solid Waste Management Branch) details impoundment's characteristics. USEPA III personnel were copy holders. See Attachment B.

SWMU #10 .. South Waste Treatment Storage Pad

YEARS USED: 1982 to present

UNIT'S FUNCTION: Storage of non-hazardous Waste Treatment Muds

MATERIAL OF CONSTRUCTION: Concrete pad, fenced in on three sides

DIMENSIONS; Length ... 130 ft
Width ... 100 ft
Depth ... 1 ft

CAPACITY: Approximately 480 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Waste Treatment Muds

QUANTITY: Estimated 480 cu yds

CLOSURE PROCEDURE: Not applicable

RELEASES: None known

SWMU #11 .. Waste Oil Storage
Powerhouse

YEARS USED: 1983 to present

UNIT'S FUNCTION: Storage of Waste Oil/Water Emulsions

MATERIAL OF CONSTRUCTION: Fiberglas storage tank, horizontal, above ground

DIMENSIONS: 64" I.D. x 94" Straight side
two (2) dished heads

CAPACITY: 1500 gallons

ENGINEERING DRAWINGS: D4430, C-1485

WASTE DESCRIPTION: Oil/Water emulsions (Effluent from air receiver drains)

QUANTITY: 2500 gallon/month (average)
Range (1500 - 4500 gallon/month)

CLOSURE PROCEDURE: Not applicable

RELEASES: None known

SWMU #12 .. Waste Oil Storage - Garage

YEARS USED: Unknown to present

UNIT's Function: Storage of Waste oils

MATERIAL OF CONSTRUCTION: Steel tank, underground storage

DIMENSIONS: Unknown

CAPACITY: 1000 gallons

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Waste oil

QUANTITY: Maximum: 1000 gallons
Current: None

CLOSURE PROCEDURE: None applicable

RELEASE: None known

SWMU #13 .. Past Landfill - Area I

YEARS USED: 1972 - 1973

UNIT'S FUNCTION: Disposal of miscellaneous chemicals in drums

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS:
Width ... 10 ft
Length ... 200 ft
Depth ... 15 ft

CAPACITY: Estimated 1100 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Formic acid sludge, Fluosulfonic acid sludge

QUANTITY: Estimated 22.5 net tons

CLOSURE PROCEDURE: Area back filled with removed soil

RELEASE: None known

SWMU #14 .. Past Landfill - Area II

YEARS USED: 1972 - 1973

UNIT'S FUNCTION: Disposal of miscellaneous chemicals & debris

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS:
Length ... 40 ft
Width ... 40 ft
Depth ... 10 ft

CAPACITY: Estimated 592 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Waste Cuprous Chloride and Cuprous Chloride contaminated building materials (bricks, etc.)

QUANTITY: Estimated 2.5 net tons

CLOSURE PROCEDURE: Area back filled with removed soil

RELEASE: None known

SWMU #15 .. Past Landfill - Area III

YEARS USED: 1972

UNIT'S FUNCTION: Waste chemical disposal

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS:
Length ... 200 ft
Width ... 50 ft
Depth ... 10 ft

CAPACITY: Estimated 3700 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Fluosulfonic Acid, Aluminum Chloride, Phosphorus Pentoxide, Phosphorus Oxychloride, Phosphorus Trichloride, Phosphorus Pentachloride, Methylene Chloride, Methanol and Organic Strippers (CBI, A-20, A-30)

QUANTITY: Fluosulfonic Acid .... est. 8.5 net tons
Balance of chemicals .. est. 10.5 net tons

CLOSURE PROCEDURE: Area back filled with removed soil

RELEASE: Approximately one month after burial, Fluosulfonic Acid reacted with rain water, a highly exothermic reaction. A "sink" hole developed, which emitted steam for several days. Shortly thereafter, the hole was again back filled. To date, there have been no other incidents.

SWMU #16 .. Past Landfill - Area IV

YEARS USED: 1972 - 1977

UNIT'S FUNCTION:

Disposal of waste solvents generated during packaging operations (i.e., spills, packaging cleaning, equipment cleanings, etc.)

MATERIAL OF CONSTRUCTION:

Ground excavation, back filled with crushed stone

DIMENSIONS: Two excavations. each 10' x 8' x 6'

CAPACITY: Estimated 36 cu yds (Total)

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION:

Acetone, Methanol, Methyl Ethyl Ketone, Methyl Ethyl Ketoxime, Isopropyl Alcohol, Tetrachloroethylene, Toluene, Trichlorethylene, Xylene, Dichloro-Trichloro-Ethane (Genesolv D), Isohexane, Ethyl Alcohol, Nitromethane, Cyclopentane, Isopropylamine, Dodecylbenzene Sulfonate, Hexane, Methylene Chloride

QUANTITY: Estimated 75 net tons

CLOSURE PROCEDURE: Area use terminated in 1977

RELEASES: None known other than that caused by evaporation

SWMU #17 .. Past Landfill - Area V

YEARS USED: 1960 - 1974

UNIT'S FUNCTION: Disposal of Laboratory Samples

MATERIAL OF CONSTRUCTION: Ground Excavation, back filled with crushed stone

DIMENSIONS:
Length ... 6 ft
Width ... 4 ft
Depth ... 1 ft

CAPACITY: Estimated 0.9 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION:

Sulfuric Acid, Phosphoric Acid, Fluosulfonic Acid, Hydrochloric Acid, Acetone, Methanol, Methyl Ethyl Ketone, Methyl Ethyl Ketoxime, Methylene Chloride, Isopropyl Alcohol, Tetrachloroethylene, Toluene, Trichloroethylene, Xylene, Trichloro-Trifluoro-Ethane, Isohexane, Ethanol, Nitromethane, Cyclopentane, Hexane, Isopropylamine, Dodecylbenzene Sulfonae, DDT and Metabolites, Benzene Hexachloride (Alpha, Beta & Gamma), Kepone.

QUANTITY: Estimated 2 net tons

CLOSURE PROCEDURE: Use discontinued in 1974. In 1978 an area 50 ft x 50 ft was asphalt covered and properly sloped to prevent storm water penetration.

RELEASES: None known other than by evaporation. See Attachment C

SWMU #18 .. Past Landfill - Area VI

YEARS USED: 1972

UNIT'S FUNCTION: Disposal of miscellaneous chemical wastes

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS: Length ... 12 ft
Width ... 6 ft
Depth ... 4 ft

CAPACITY: Estimated 11 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Acetyl Chloride, Methoxychlor, Monochlorobenzene

QUANTITY: Estimated 0.5 net tons

CLOSURE PROCEDURE: Excavation back filled in 1972. In 1978, the entire area was paved and sloped to insure proper drainage, while preventing stormwater penetration.

RELEASES: None known

SWMU #19 .. Past Landfill - Area VII - S of Bldg. #22

YEARS USED: 1968 - 1969

UNIT'S FUNCTION: Sludge disposal - DDT manufacture

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS: (Approximate)
Length ... 50 ft
Width ... 12 ft
Depth ... 10 ft

CAPACITY: Estimated 222 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: DDT/TDE Decomposition products sludge

QUANTITY: Estimated 25 net tons

CLOSURE PROCEDURE: Area back filled with removed soil in 1968 or 1969. In 1978 area was asphalt covered and properly sloped to prevent stormwater penetration.

RELEASES; See Attachment C

SWMU #20 .. Past Landfill - Area VIII - Boron Trifluoride Pond

YEARS USED: 1945 - 1975

UNIT'S FUNCTION: Disposal of gas cylinders

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS: Length ... 90 ft
Width ... 90 ft
Depth ... 8 ft

CAPACITY; Estimated 2400 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Boron Trifluoride and Iodine Pentafluoride

QUANTITY: Estimated 500 lbs of gaseous chemicals

CLOSURE PROCEDURE: Area land filled and asphalt covered in 1975

RELEASE: None known

SWMU #21 .. Past Landfill - Area IX

YEARS USED: 1960

UNIT'S FUNCTION: Disposal of Lindane and other Pesticide residues

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS: Two excavations. Each with the following dimensions:

Length ... 200 ft
Width ... 9 ft
Depth ... 6 ft

CAPACITY: Estimated 800 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Alpha, Beta and Gamma Benzene Hexachloride; DDT and its Metabolites

QUANTITY: Estimated 404 net tons

CLOSURE PROCEDURE:

- Area back filled in 1960, a portion of the site is located under the lined equalization basins (Lagoons), for the influent water to the Environmental protection Station. Basins were constructed in 1971-1972. In 1978, the remaining contaminated area was asphalt covered and properly sloped to prevent stormwater contamination.

RELEASES: See attachments C & D

SWMU #22 .. Past Landfill - Area X -Located S of EPS Lagoon

YEARS USED: 1958 - 1959

UNIT'S FUNCTION: Disposal of Spent Excelsior following processing for Selenium recovery

MATERIAL OF CONSTRUCTION: Ground excavation

DIMENSIONS: (Approximate)
Length ... 200 ft
Width ... 500 ft
Depth ... 10 ft

CAPACITY: Estimated 37000 cu yds

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION: Selenium-contaminated Excelsior and cellulose (paper fiber)

QUANTITY: Estimated 473 net tons

CLOSURE PROCEDURE: Area back filled in 1959

RELEASES: None known

SWMU #23 .. Past Landfill - Area XI - Located S of Bldg E

YEARS USED: 1945 - 1974

UNIT'S FUNCTION: Sample quantity chemical disposal

MATERIAL OF CONSTRUCTION: Ground excavation, back filled with crushed stone

DIMENSIONS: 10' x 4' x 1'

CAPACITY; Estimated 1.5 cu yd

ENGINEERING DRAWINGS: None

WASTE DESCRIPTION:

Sulfuric Acid, Nitric Acid, Hydrochloric Acid, Hydrofluoric Acid, Fluosulfonic Acid, Phosphoric Acid, Kepone, Benzene Hexachloride, DDT and its Metabolites, Various Inorganic Salts, Various Halogenated and Non-Halogenated Solvents.

QUANTITY: Estimated 1000 lbs

CLOSURE PROCEDURE:

Area back filled in 1974. In 1978, the area was covered with asphalt and properly sloped to prevent storm water penetration.

RELEASES: Evaporative losses. Also see attachments B & C

SWMU #24 .. RCRA Storage Area

YEARS USED:

1968 - 1972 .. Packaging and storage of Perchloric Acid.

1983 - 1985 .. Hazardous Waste Storage facility (EPA ID # PAD 990823742)

1985 - Present .. Hazardous Waste Storage facility (less than 90 days)

UNIT'S FUNCTION: 1968 - 1972 .. Perchloric Acid facility

1983 - Present .. Storage facility for five (5) hazardous wastes (BNSA "Muds"; organic strippers; Waste Methylene Chloride; Waste Solvents; Oximino Silane Waste). Since 1985 storage less than 90 days.

MATERIAL OF CONSTRUCTION:

Section A - curbed area with concrete and blacktop base. Open area.

Section B - curbed concrete base; fully enclosed area with roof.

Section C - fully enclosed and curbed building. (concrete block walls, roof)

DIMENSIONS: Section A - 2200 sq ft (19' x 21'; 60' x 30')

Section B - 1890 sq ft (41.3' x 45.7')

Section C - 720 sq ft (20' x 36')

TOTAL AREA: 4810 sq ft

CAPACITY: 400 x 55 gal drums/44 gal fiberpaks

ENGINEERING DRAWINGS: D-4728

WASTE DESCRIPTION:

1. BNSA muds (Naphthalene, Naphthalene Sulfonic Acid, Cellulose Fiber) D002 Waste

2. Organic Strippers (Dodecylbenzene Sulfonic Acid, Tetrachloroethylene, Dichlorobenzene, Phenol, Phenol Sulfonic Acid, D002 Waste

3. Waste Methylene Chloride (Methylene Chloride, Boron Trifluoride Monoethylamine) F002 Waste

4. Waste solvents (various halogenated and non-halogenated chemicals) F002 Waste

5. Oximino Silane Waste (Hexane, Ammonium Chloride) D001 Waste

QUANTITY: 70 - 120 containers (Typical)

CLOSURE PROCEDURE:

Closure plan submitted to PADER on 8/15/83, as Section I of the Part L application

Financial assurance for closure and post-closure submitted to PADER (9/17/85)

Closed and closure inspection report issued by PADER (12/31/85) See Attachment E

RELEASES: None known

SWMU #25 .. Sulfuric/Oxalic Storages (2)

YEARS USED: 1967 to present

UNIT'S FUNCTION: Idle Storage of Spent Sulfuric Acid /Oxalic Mother Liquors

MATERIAL OF CONSTRUCTION: Two (2) vertical steel tanks, lead-brick lined

DIMENSIONS: Two tanks, each 13' diameter; 12' in height

CAPACITY: Each tank ... 1.592 cuft = 12,000 gallon (nominal)

ENGINEERING DRAWING: 402947

WASTE DESCRIPTION:

Spent Sulfuric Acid, consisting of Sulfuric Acid, Oxalic Acid, Iron Sulfate

QUANTITY: 20,000 gallons

CLOSURE PROCEDURE: Not applicable

RELEASES; None known

SWMU #26 .. South Waste Treatment Plant

YEARS USED: 1972 - 1982

UNIT'S FUNCTION:

The facility was constructed to neutralize and reduce solids loading in effluent streams from the Alum, Hydrofluoric Acid, Fluoride manufacture, tank car washings and sulfuric Acid precipitator drip acid processes.

MATERIAL OF CONSTRUCTION:

Plant is essentially a steel construction with selective use of rubber lining and various plastics where applicable.

DIMENSIONS:

The facility is a series of treatment tanks. The two story building is 100' in length x 26' width, with associated exterior tankage listed separately as sites #7 and #8.

CAPACITY: See Engineering Dwg. #517738

ENGINEERING DRAWINGS: See envelope #26

WASTE DESCRIPTION:

The solid waste from this operation was primarily a dewatered sludge consisting of gypsum (Calcium Sulfate; Calcium Fluoride; and Alum Muds). Primary constituents are Aluminum Oxide, Silicon Dioxide, Titanium Dioxide and Iron Oxide. The clean effluent met applicable standards under NPDES Permit (DE 0000655)

QUANTITY: Approximately 87000 net tons sludge discharged to SWMU #9 over the facility's lifetime

CLOSURE PROCEDURE:

Plant operation was terminated in 1982. Two tanks remain in an alternate service (SWMU's #7, #8). All tankage was emptied and flushed, except a dry lime silo which remains approximately one-half full.

RELEASES: None known

SWMU #27 .. Environmental Protection Station -North

YEARS USED: 1972 - Present

UNIT'S FUNCTION:

The Wastewater Treatment Plant processes sanitary Wastewaters that are exposed to North Works manufacturing operations. Non-contact cooling water used on a once-through basis is discharged directly to outfall #001.

Process water is collected in wet wells and then stored in lined basins prior to entering the treatment facility. contaminated water is introduced in a controlled manner to neutralizers (3) where $Ca(OH)_2$ is added primarily for pH control and Fluoride precipitation. The neutralizers discharge to two clarifiers, where precipitates are settled. A clear overflow is discharged to Newcastle County Sewer District and the clarifier bottom is drawn to a filter press for solids removal. Filtrate is returned to the clarifiers and the solids are collected and sent to an off-site sanitary landfill.

MATERIAL OF CONSTRUCTION:

Plant is a steel construction with selective use of rubber lining and various plastics where necessary. The lagoon liners are EPDM rubber.

DIMENSIONS:

Wet Wells (2)	12' diameter, 21' deep
Equalization Basins (2)	100' x 140' x 12'
Neutralizers (3)	12' diameter, 17' height
Clarifiers (2)	25' diameter, 13' height
Lime Storage (2)	12' diameter, 18' height
Sludge Container (3)	22' x 7' x 4'

CAPACITY:

Wet Wells (2)	17,800 gal (each)
Equalization Basins (2)	900,000 gal (each)
Neutralizers (3)	14,400 gal (each)
Clarifiers (2)	47,700 gal (each)
Lime Storage (2)	15,200 gal (each)
Sludge Containers (3)	20 cu yds (each)
System processing Capacity ...	1,500,000 gal/day

ENGINEERING DRAWINGS: See envelope #27

WASTE DESCRIPTION:

A non-hazardous waste containing 35 - 45% solids. No free liquid. Material is essentially Calcium Fluoride, with trace metals.

QUANTITY: 75,000 lbs/month (typical)

CLOSURE PROCEDURE: Not applicable

RELEASES; None known

SITE #28 ... HYPO MUDS

YEARS USED: 1973 - PRESENT

UNIT'S FUNCTION:
WASTEWATERS FROM THE PHOTO-SALT MANUFACTURING PROCESSES ARE OXIDIZED AND THE SUSPENDED SOLIDS ARE REMOVED BY VACUUM FILTRATION. FILTER CAKE AND SOLIDS ARE COLLECTED IN PORTABLE DUMPSTER CONTAINERS FOR DISPOSAL AS NON-HAZARDOUS WASTE IN AN OFF-SITE SANITARY LANDFILL.

MATERIAL OF CONSTRUCTION:
STEEL CONTAINERS
MATERIAL DISCHARGED DIRECTLY TO DISPOSAL CONTAINERS

DIMENSIONS: 22' X 6' X 4'

CAPACITY: 20 CU YDS

ENGINEERING DRAWINGS: NONE

WASTE DESCRIPTION:
NON-HAZARDOUS WASTE CONTAINING 60 - 80% SOLIDS. NO FREE LIQUID. MAJOR COMPONENTS ARE SULFUR, FILTER AID (DIATOMACEOUS EARTH), ACTIVATED CARBON, SODA ASH, SILICON, IRON, WATER.

QUANTITY: 10,000 - 15,000 LBS/ MONTH
12,000 LBS (TYPICAL)

CLOSURE PROCEDURE:

RELEASES: NO KNOWN RELEASES

COMMENTS:

SITE #29 ..: MISCELLANEOUS NON-HAZARDOUS INDUSTRIAL WASTES

IN ADDITION TO THE PREVIOUSLY MENTIONED SOLID WASTES, THE FOLLOWING FOUR (4) NON-HAZARDOUS WASTES ARE PERIODICALLY GENERATED AND DISPOSED OF OFF-SITE AT APPROVED SANITARY LANDFILLS. THESE MATERIALS ARE PLACED IN PORTABLE DUMPSTER CONTAINERS (20 OR 30 CU YD CAPACITY) AND TRANSPORTED VIA OUTSIDE COMMERCIAL HAULERS.

1. PLANT TRASH (PAPER, WOOD, etc.)

2000 CU YDS / MONTH (TYPICAL)
1800 - 2300 CU YD / MONTH (RANGE)

2. BRICK/ REFRACTORY/ ASH (DEMOLITION MATERIALS)

QUANTITY VARIES .... 6 - 20 NET TON/ YEAR

3. SPENT STEEL WOOL

QUANTITY VARIES ... < 1 TON/YEAR

4. BAGGED ASBESTOS/ NON-ASBESTOS INSULATION

QUANTITY VARIES ... 1.5 - 2.0 TON/YEAR

Agency
Washington DC 20

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

A. Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name: Allied Corporation

Street: P. O. Box 1139R

City: Morristown State: N J Zip Code: 07960

B Site Location:

Enter the common name (if known) and actual location of the site.

Name of Site: Delaware Valley Works

Street: Route 13

City: Marcus Hook County: Delaware State: Pa Zip Code: 19061

C Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): Shields, Edward

Phone: (201) 455-5630

Director, Environmental Services, Allied Chemical *

D Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1920 * To (Year): Current

* Allied Corporation was formed in 1920.

E Waste Type: Choose the option you prefer to complete

Option 1: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☒ Organics
2. ☒ Inorganics
3. ☐ Solvents
4. ☒ Pesticides
5. ☒ Heavy metals
6. ☒ Acids
7. ☒ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☐ Other (Specify)

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☒ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with Resource Conservation and Recovery Act (RCRA) Section 3 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous w listed in the regulations under Section 3001 of RCRA. Ente appropriate four-digit number in the boxes provided. A cop the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the located.

Form Approved
OMB No. 2090-0135
EPA Form 8900-1

* an operating company of Allied Corporation

indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

2. ☐ Land Treatment
3. ☒ Landfill
4. ☐ Tanks
5. ☒ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) _____

~~acres~~ @ 1,000 to 1,500 tons

Total Facility Area

square feet _____

acres _____

G Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☒ Known ☐ Suspected ☐ Likely ☐ No

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assess hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

Sketch Attached

I Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

This plant makes numerous organic and inorganic products. Organic pesticides were manufactured in the past. The presence of hazardous wastes deposits resulting from burying of pesticides on site has been reported to EPA Region III. The plant has been in operation for a long time and the ground in and around process areas is probably contaminated with products and raw materials from incidental spills and leaks.

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other".

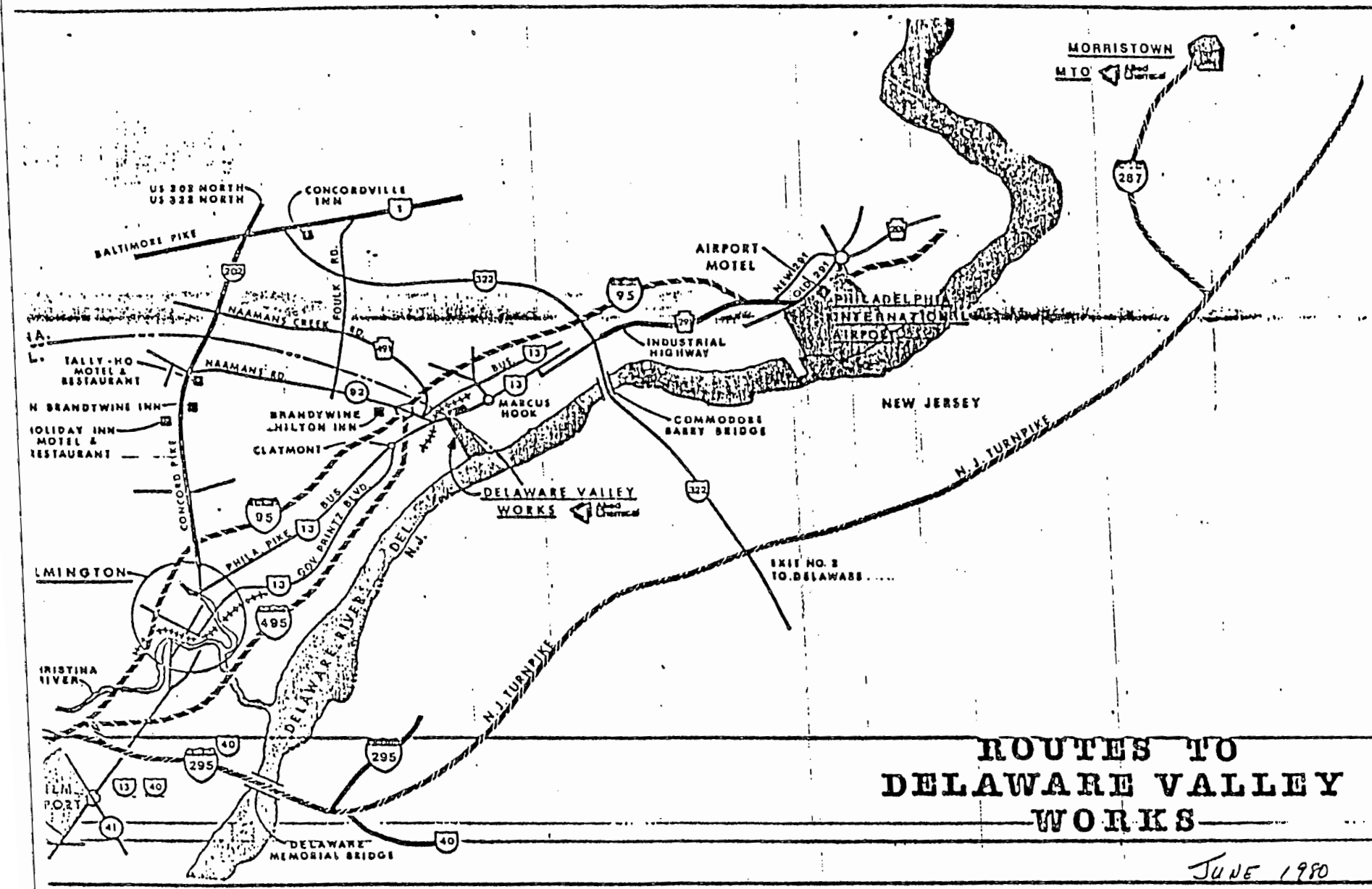
Name Edward Shields

Street P. O. Box 1139R

City Morristown State NJ Zip Code 07960

Signature _____ Date 6/2/81

☒ Owner, Present
☐ Owner, Past
☐ Transporter
☒ Operator, Pres
☐ Operator, Past
☐ Other


MORRISTOWN
US 202 NORTH
US 322 NORTH
CONCORDVILLE INN
BALTIMORE PIKE
FOULK RD.
AIRPORT MOTEL
NEWARK
Old 291
PHILADELPHIA INTERNATIONAL AIRPORT
NAAMANS CREEK RD.
INDUSTRIAL HIGHWAY
TALLY-HO MOTEL & RESTAURANT
NAAMANS RD.
BUS
MARCUS HOOK
N BRANDYWINE INN
BRANDYWINE HILTON INN
COMMODORE BARRY BRIDGE
NEW JERSEY
HOLIDAY INN MOTEL & RESTAURANT
CLAYMONT
CONCORD PIKE
DELAWARE VALLEY WORKS
PHILA PIKE
GOV PRINTZ BLVD.
DEL.
N.J.
N.J. TURNPIKE
EXIT NO. 3 TO DELAWARE
LMINGTON
DELAWARE RIVER
RISTINA IVER
N.J. TURNPIKE
DELAWARE MEMORIAL BRIDGE
ROUTES TO
DELAWARE VALLEY
WORKS
JUNE 1980